

Cost and Management

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Editorial Comment . . .

Adult Education

A HALF CENTURY ago, the life span of man in most civilized countries was measured in stages that varied little between nations. There were uniform stages that marked the baby, the pre-school child, the years of school learning, which ended abruptly with the realities of making a living. Once adulthood was reached, any further study was denied in favor of the hard school of experience. Adult study was scorned by many of those who graduated from the experience school.

The first half of this century has taught us that, although experience is a necessary and valuable asset, we do not live long enough to acquire by this method the knowledge necessary for an individual or nation to reach the greatest potential. A man or nation cannot live a life rigidly insulated from the present or past generations. Progress in world politics, economics, and the sciences and the resultant shrinking of space and distance have made it necessary for each individual to adapt himself to the changing climate and to strive for the versatility and knowledge that marked the spirit of the Renaissance centuries ago.

Despite the great developments of this century, statistics seem to prove that many people still have not learned the very simple lesson that knowledge and education both are essential to the living of rich and productive lives. It is impossible to gain adequate knowledge by experience alone, even in a very limited field. We must draw on the experience of others and add a small bit to the storehouse for generations yet unborn.

Even if a man goes through the public, high school, and college processes of education, he is still only on the threshold of knowledge. As he begins to apply what he has learned in the daily tasks of life, he will learn further from experience. However, new developments in other fields will leave him behind unless he is aware that all fields of knowledge are inter-related and that progress in one affects the others.

Adult education is no longer a program designed to give a second chance to those who did not go through the educational process in their earlier years. Rather, it has been expanded to include all people who wish to continue the learning process through their lives. Such a program is a necessity, for without continuous study, we may fast become obsolete by new breakthroughs in the fast-moving world.

CASH FLOW

by F. J. Muth,
Controller,
Armstrong Cork Company,
Lancaster, Pennsylvania.

Tomorrow's business growth will be financed by the cash generated by sound financial planning today. Using the example of a hypothetical wholesaler, the author develops a five-year program aimed at financing sufficient growth to expand sales by 50 per cent at the end of that time.

WITH A VIEW to doubling our business during the present decade, let's take a practical look at the possibility of a 50 per cent increase in sales over the next five years. Whether or not we succeed in accomplishing the ten-year goal will depend largely on how soundly we plan today. The financial manager knows that a large increase in sales volume cannot be accomplished without an increase in capital. Additional funds will be needed to underwrite increased operating expenses, increased accounts receivable and increased inventories. If we are to reap the full benefits of the opportunities of the next decade, we must set up our financial programs today or risk the possibility of constricting the potential growth in sales and profits through lack of funds.

Let's begin with a quick review of the fundamentals of cash flow. The first cash that flows through a business is usually supplied by the owners. A second source is provided by individual lenders or banks. This cash finds its way into fixed assets, i.e., land, buildings, and equipment, and into working capital to finance accounts receivable and to establish inventories. At this point we learn of another source of cash, as our vendors in extending credit on the purchase of inventories are, in effect, lending money, for they are providing goods which will be paid for later. If our businesses are to be profitable, the inventories must be sold at a price that is greater than the cost of the goods themselves plus operating expenses. Most of the cash which flows through a wholesale business is generated by this sale of goods. Cash sales represent an immediate return of funds. Sales on account return cash after some delay. When we sell at a profit, we not only are able to replace the original inventories, but we add to our cash supply. This increased cash supply makes it possible for our businesses to grow since it enables us to service increased quantities of inventories and higher levels of accounts receivable.

Another source of cash, in a limited sense, is the depreciation charge normally reported as a part of operating expense. This charge recognizes that fixed assets are gradually exhausted through use, and that it is necessary to set aside a cash reserve for their replacement. Whereas most operating expenses must be met immediately, the replacement of fixed assets can be delayed until such time as considered desirable by management. In the interim, the portion of cash resulting from sales which

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represents the depreciation charge is available for use as working capital. However, it should be borne in mind that fixed assets will need replacement eventually if the firm is to continue, and when that time arrives, it is the responsibility of management to have the cash available or it will be necessary to obtain it from outside sources.

To summarize: once a business has been established, we depend largely on profits for the source of capital required to grow financially. Obviously, we should, therefore, pay strict attention to our gross margin and operating expense ratios to assure optimum profits. To make the most effective use of the cash generated by profits in expanding our businesses, the levels of inventories and accounts receivable must be kept in sound relationship to sales volume. These things do not happen automatically with increased sales volumes. They must be made to happen by establishing a plan of action, well-documented and constantly reviewed.

To illustrate the possibility of generating the cash needed for growth within the business and without resorting to outside financing, we have developed a hypothetical company named the ABC Company. The figures we are using were based on the 1959 operating statement and balance sheet of a successful Armstrong wholesaler who has been generating sufficient cash to finance considerable growth in recent years. This company is in sound financial condition today and stands ready to take full advantage of the profit opportunities of this decade.

CHART 1

ABC Company OPERATING STATEMENT—YEAR 1959

	Amount	% of Sales
	(000)	
NET SALES.....	\$2,825	100.0
Cost of Sales.....	2,316	82.0
GROSS MARGIN.....	509	18.0
Operating Expenses.....	364	12.9
PROFIT BEFORE INCOME TAXES.....	145	5.1
Federal and State Income Taxes.....	72	2.5
NET PROFIT.....	73	2.6

CHART 1

Our first chart shows the operating statement of the ABC Company for the year 1959. All figures on this and following charts will be shown in thousands of dollars. Net sales as shown on the top line of the first column were at a level of \$2,825,000, and net profit, which, of course, is after tax, as shown on the bottom line in the first column, was \$73, 000, or 2.6% of sales.

On this chart, the important checkpoints are the gross margin ratio, shown as 18%, and the operating expense ratio immediately below, 12.9%. The Company from which we drew these figures actually had slightly better ratios than the ones adopted for this hypothetical company.

CHART 2

ABC Company
BALANCE SHEET AT DECEMBER 31, 1959

(000 Omitted)

ASSETS		LIABILITIES AND EQUITY	
Current Assets:		Current Liabilities:	
Cash.....	\$ 70	Accounts Payable.....	\$140
Accounts Receivable (45 days).....	351	Mortgage Payable.....	15
Inventories (60 days).....	383	Income Taxes Payable.....	72
		Note Payable to Banks.....	72
Total Current Assets.....	\$ 804	Total Current Liabilities...	\$ 299
Non-Current Assets:		Non-Current Liabilities:	
Property, Plant and Equipment.....	526	Mortgage.....	203
Less: Depreciation Reserve.....	150		
	376	Total Liabilities.....	502
Miscellaneous Assets.....	20	Owners' Equity.....	698
Total Non-Current Assets....	396	TOTAL LIABILITIES AND EQUITY.....	\$1,200
TOTAL ASSETS.....	\$1,200		

CHART 2

Moving on to the balance sheet of the ABC Company depicting the financial condition of this business as of December 31, 1959, we see from the bottom line in the left-hand column that they employ total assets of \$1,200,000.

Going to the top line on the asset side, we find that this company has an operating cash level of \$70,000, approximately 2½ % of the sales volume which the management has found to be a good ratio for determining operating cash requirements. Accounts receivable are being turned every 45 days and inventories every 60 days. Incidentally, the model company turned its receivables in 40 days and its inventories in 50 days during 1959. The current assets total \$804,000.

Dropping down to the non-current assets, note that the original investment in plant, property and equipment totals \$526,000, against which a depreciation reserve of \$150,000 has been accumulated, leaving a book value at the end of the year of \$376,000. In addition, miscellaneous assets of \$20,000 were reported. This consists of prepaid expenses and cash surrender value of life insurance.

Moving to the top of the right side of this balance sheet, let's take a look at current liabilities. We find \$140,000 in the accounts payable. It has been the policy of this company to discount all of its bills. A mortgage which is carried on the property calls for an annual reduction of \$15,000. Income taxes payable at the end of the year amounted to \$72,000, and there is a note payable to the bank of \$72,000.

Under non-current liabilities, we see that \$203,000 remains to be paid on the mortgage. Net equity in this business as of December 31, 1959, was \$698,000.

CHART 3—OPEN TO WIDE

With this background, suppose we look ahead for the next five years and see what can reasonably be expected in the way of cash generated. You will recall that we planned to increase the sales from the 1959 level of \$2,825,000 by 50% over the

CHART 3
ABC Company
CASH FLOW

(000 Omitted)

	NET SALES	Net Profit	Depreciation	Increase in Payables	Total Cash Generated
1960.....	\$3,060	\$ 82	\$38	\$28	\$148
1961.....	3,325	94	39	27	160
1962.....	3,600	105	41	27	173
1963.....	3,900	116	42	28	186
1964.....	4,250	130	44	33	207

next five years. This would require an annual increase of approximately $8\frac{1}{2}\%$ and . . .

. . . will mean moving to \$3,060,000 in sales in 1960, and then by successive steps to \$4,250,000 by 1964.

If we are able to maintain the gross margin ratio of 18% of sales and hold operating expenses at the level of 12.9%, these sales will generate profits after tax of \$82,000 in 1960 and the annual profits after tax will move to a level of \$130,000 for the year 1964.

Cash generated through depreciation moves from \$38,000 per year to \$44,000 by 1964. This increase reflects planned capital additions to property, plant and equipment of \$20,000 per year in the next five years.

In this projection, it is expected we will continue to discount all bills, but because of higher volumes of business, we will have a fairly steady increase in the contribution of cash on the part of vendors, moving from \$28,000 additional in 1960 to \$33,000 additional in 1964.

The last column shows that the total cash generated *each* year under this plan will move from \$148,000 in 1960 to a level of \$207,000 in 1964.

Now let's continue our cash flow analysis to determine the additional cash required during this same five-year period. The 1959 balance sheet showed an operating cash level of \$70,000. Since the requirement in operating cash has been found to have a direct relationship of $2\frac{1}{2}\%$ to net sales, obviously with increased sales volume, we will need to step up this level to \$105,000 by 1964.

CHART 4

This adjustment will amount to \$5,000 in 1960, with increasing amounts in each successive year, reaching an \$8,000 addition in 1964.

If accounts receivable are held at the same ratio to sales as experienced in 1959, i.e., 45 days, annual increases in accounts receivable will move from \$29,000 additional in 1960 to \$43,000 additional in 1964.

Inventories held at 60 days as in 1959 will need to be increased annually by the amounts shown, starting with \$32,000 in 1960, moving to \$47,000 in 1964.

CHART 4
ABC Company
CASH FLOW
 (000 Omitted)
CASH REQUIRED

	Operating Cash	Accounts Receivable	Inventories	Miscel- laneous Assets	Capital Additions	Mortgage Payment	Total Cash Required
1960...	\$5	\$29	\$32	\$3	\$20	\$15	\$104
1961...	6	33	36	3	20	15	113
1962...	6	34	37	3	20	15	115
1963...	8	38	41	3	20	15	125
1964...	8	43	47	3	20	15	136

The increase in miscellaneous assets will be relatively constant and is recorded at \$3,000 per year.

As mentioned earlier, we are allowing \$20,000 expenditures each year for capital additions so that over the five-year period, \$100,000 will be spent. This will be needed for replacement of automobiles, trucks, equipment, etc., and will probably allow a reasonable degree of warehouse expansion.

The agreed-upon annual payments of \$15,000 against the mortgage will remain constant. Summarizing, the total additional cash required each year will be . . .

. . . \$104,000 in 1960, \$113,000 in 1961, \$115,000 in 1962, \$125,000 in 1963, and, finally, \$136,000 in 1964.

Now, let's set the generation of cash by years opposite the additional cash required by years.

CHART 5
ABC Company
CASH FLOW
 (000 Omitted)

	TOTAL AMOUNT OF CASH		CASH GENERATED OVER CASH REQUIRED	
	GENERATED	REQUIRED	EACH YEAR	CUMULATIVE
1960.....	\$148	\$104	\$44	\$ 44
1961.....	160	113	57	101
1962.....	173	115	58	159
1963.....	186	125	61	220
1964.....	207	136	71	291

CHART 5

In 1960, we will generate \$148,000 of cash, but will require \$104,000 of this as shown on the chart. This will leave us with a cash generation of \$44,000, third column, over the cash required for the operation of the business in this year, and in the succeeding years, \$57,000, \$58,000, \$61,000, and \$71,000.

The fourth column on the extreme right shows the accumulation over the years of this cash in excess of the requirements and indicates that this will amount to \$291,000 by the end of 1964.

In these calculations, no allowance for dividend payments has been made. A 5% dividend on the \$698,000 net equity reported December 31, 1959, would require a payout of \$35,000 annually and reduce the cash accumulation figure of \$291,000 by \$175,000 to \$116,000.

Up to this point, we have been talking about cash generation against assumptions depicting a well-managed business where close attention has been paid to the four important ratios.

CHART 6

ABC Company

ALTERNATIVE ASSUMPTIONS FOR 1960 THROUGH 1964

	No. 1—CONTINUING GOOD OPERATIONS	No. 2—DETERIORATING OPERATIONS
Gross Margin.....	18.0% of sales	17.7% of sales decreasing to 16.8%
Operating Expenses.....	12.9% of sales decreasing to 11.8%	13.0% of sales increasing to 13.5%
Accounts Receivable.....	45 days in sales	47 days in sales increasing to 60 days
Inventories.....	60 days in sales	62 days in sales increasing to 75 days

CHART 6

It will be interesting to compare these results against what would happen under a set of assumptions indicating a less efficient management. Now, under the title #1 . . .

. . . Continuing Good Operations, we restate the plan for continuation of the operation of the ABC Company through maintaining the same gross margin, 18%, experienced in 1959, and operating expenses improving slightly over the period from 12.9% of sales to 11.8% . (This improvement reflects the absorption of fixed elements of expense through volume.) Investment in accounts receivable is held at 45 days in sales and inventories at 60 days.

Under the title #2, we are showing hypothetical ratios which could occur under deteriorating financial management. We use assumptions that in place of a gross margin of 18.0% experienced in 1959, we start with a 17.7% margin on sales, decreasing over the five-year period to a level of 16.8%. We assume that operating expenses will show an increase from 13.0% in 1960 to 13.5% in 1964; that accounts receivable will grow from a relationship to sales of 47 days in 1960 to 60

days in 1964, and that inventories will rise from 62 days in sales to 75 days in 1964. These changes in ratios may appear to be minor, but let's examine their cumulative effect on cash flow.

CHART 7

ABC Company
COMPARISON OF EFFECT ON CASH
OF ALTERNATIVE ASSUMPTIONS NO. 1 AND NO. 2
 (000 Omitted)

	CASH GENERATED OVER (UNDER) CASH REQUIRED			
	EACH YEAR Assumption		CUMULATIVE Assumption	
	No. 1	No. 2	No. 1	No. 2
1960.....	\$44	\$ 8	\$ 44	\$ 8
1961.....	57	(57)	101	(49)
1962.....	58	(62)	159	(111)
1963.....	61	(56)	220	(167)
1964.....	71	(106)	291	(273)

CHART 7

The first column repeats the previous chart 5 showing the annual generation of excess cash which is considered possible under the original assumption #1. The next column shows the annual effect under deteriorating management, assumption #2. It is apparent that in each successive year following 1960, cash deficiency will develop and bank borrowings of increasing size will be required if the operation is to be continued.

Moving on to the right side, we show in the third and fourth columns the cumulative effects under these two sets of assumptions. The third column repeats our previous chart. The fourth column points up the need for total borrowings of \$273,000 by the end of the fifth year under the #2 assumption of management deterioration. This borrowing would be possible since the inventories at the end of 1964 are projected at \$700,000 and banks are normally willing to lend up to 50% of the inventory investment, everything else being equal. Admittedly, this illustration is on the exaggerated side, but it is intended to point out the deleterious effect of moving away from sound operating and balance sheet ratios. It is inconceivable that any responsible management group would permit the progressive deterioration portrayed in this fourth column, but would take immediate action to reverse unfavorable trends as soon as they appear.

To summarize the favorable cash generation under the #1 assumption of continuing the efficient financial management of the ABC Company while increasing sales volume by 50% over a five-year period...

CHART 8

... let's compare the balance sheet of 1959 with a projected balance sheet at the end of 1964. From the first line under current assets, we find that cash has grown

CHART 8

ABC Company BALANCE SHEET AT DECEMBER 31

(000 Omitted)

	1959	1964		1959	1964
ASSETS			LIABILITIES AND EQUITY		
Current Assets:			Current Liabilities:		
Cash.....	\$ 70	\$ 312	Accounts Payable.....	\$ 140	\$ 220
Accounts Receivable			Mortgage Payable.....	15	15
(45 days).....	351	528	Income Taxes Payable....	72	135
Inventories (60 days)....	383	576	Note Payable to Banks....	72	—
Total Current Assets	804	1,416	Total Current Liabilities ..	299	370
Non-Current Assets:			Non-Current Liabilities:		
Property, Plant			Mortgage Payable.....	203	128
& Equipment.....	526	626	Total Liabilities	502	498
Less: Depreciation			Owners' Equity	698	1,225
Reserve.....	150	354	TOTAL LIABILITIES		
	376	272	AND EQUITY	\$1,200	\$1,723
Miscellaneous Assets.....	20	35			
Total Non-Current					
Assets	396	307			
TOTAL ASSETS	\$1,200	\$1,723			

from \$70,000 in 1959 to \$312,000 in 1964. We estimate that the operating cash requirement at the end of 1964 is approximately \$105,000, leaving approximately \$200,000 of cash beyond operating requirements available to finance further expansion. Without bank borrowings, it would be possible at this point to increase warehouse space and equipment or possibly to develop a new branch. Investment in accounts receivable has moved from \$351,000 to \$528,000, inventories from \$383,000 to \$576,000. Total current assets have been increased from \$804,000 to \$1,416,000. Although the original investment in plant, property and equipment has grown to \$626,000, increased depreciation reserves net this to \$272,000, a decrease of \$100,000 from the 1959 figure. Total assets shown on the last line have moved from \$1,200,000 to \$1,723,000. Moving to the right-hand side, we note accounts payable reflecting the higher level of activity have moved to \$220,000, and income taxes payable to \$135,000. We were able to pay off the note to the bank during the second year of this period. Under non-current liabilities, payments made against the mortgage have reduced this to a level of \$128,000, so that total liabilities are slightly under the level of 1959.

The owners' equity shown on the bottom line on the right-hand side has been increased from \$698,000 in 1959, to \$1,225,000 in 1964, an increase of 75%.

This increase is rather startling, but it should be remembered that all cash generated has been left in the business. Had a 5% dividend been paid on the 1959 equity over these five years, the 1964 equity would be reduced to \$1,050,000, or an increase of 50% over the 1959 level, and the cash beyond operating needs would be reduced from \$200,000 to \$25,000. However, the adjusted balance sheet should support bank loans far in excess of the requirements of continuing expansion over a second five-year period ending in 1970.

This study of the cash flow of a successful wholesaler under a program of sales expansion serves to illustrate that increased sales volumes demand increased capital. Financial managers must know today the timing of these demands so that they can meet their responsibility to have the capital available when needed. A study of the cash flow for the next five years of the particular business is the proper source of this information. This study should evaluate the four significant ratios:

1. The Gross Margins
2. The Operating Expenses
3. The Level of Accounts Receivable
4. The Levels of Inventory

If the current experience indicates that any of these is out of line with efficient operations, plans should be made to correct them. Such plans need to be documented and kept under constant review to assure performance.

The projected cash flow will indicate whether sufficient funds will be generated by the business or whether it will be necessary at times to resort to borrowings. If borrowings are indicated, the approximate dates when they will be needed can be determined before-hand, allowing time for intelligent action.

Development of these plans calls for close cooperation with sales and operating heads. There must be over-all agreement as to sound goals of sales volumes, margins, operating expenses, accounts receivable, and inventory levels. The financial manager has the important post of leadership in establishing these goals and of reporting regularly on accomplishment. It is his duty to advise promptly as deviations occur and to arrange for redrafting of the program whenever necessary.

We are now in the last quarter of the first year of the decade which has been christened the "Soaring Sixties." Financially successful businesses do not just happen, they must be *made* to happen. This is the challenge and the opportunity.

For further reading

CASH BALANCE CONTROL FOR SHORT-TERM FORECASTING, by R. L. Fuller and H. H. Seiffert, *N.A.A. Bulletin*, Aug. 1961.

CASH FORECASTING, by A. F. D. Campbell, *The Canadian Chartered Accountant*, April 1957.

GETTING MORE MILEAGE OUT OF CASH, by Sidney M. Robbins, *N.A.A. Bulletin*, Sept. 1960.

CASH FORECASTING WITH COVERAGE OF ALL FACTORS, by S. J. Dziuban, *The Controller*, Oct. 1960.

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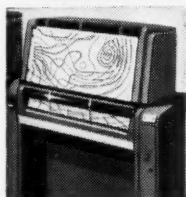
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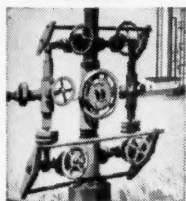
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The Economic SCENE

by J. V. Poapst,
School of Business,
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BUSINESS REVIVAL

BUSINESS activity has been on the up-swing since early in the year. A skeleton statistical outline of the revival is provided by the post-January movements of the seasonally adjusted economic indicators shown below. Being adjusted for seasonal variation, all the series can be compared from month to month. However, too much should not be read into a single change from one month to the next.

For analyzing fluctuations in business activity, seasonally adjusted economic indicators are classified by the relationship between the timing of their movements and movements in general business activity. Some show a strong tendency to lead, others to coincide with, and still others to lag changes in the level of business in general. Of the eight series shown below, two are leading indicators, four are coincident indicators, and two are lagging indicators. The indicators are not always faithful: they are capable of changing their timing and the leaders at times give "false starts" on changes in economic activity. Nevertheless the classification is of great value in describing changes in business activity. The series shown thus have significance beyond what they measure directly.

SELECTED SEASONALLY ADJUSTED ECONOMIC INDICATORS, 1961

Indicator	Feb	Mar	Apr	May	June	July
"Leaders"						
Common Stock Prices—1935-9—100...	296.6	314.3	323.5	336.1	330.6	320.3
New Orders, Cptl. Gds. \$Mil.	86.1	88.4	90.7	94.9	89.5	
"Coinciders"						
Industrial Prod'n.—1949—100.	166.1	165.7	168.7	169.3	172.5	
Unemployment 1956—100.	259	255	254	252	244	240
Exports \$Mil.	444	479	528	406		
Imports \$Mil.	452	476	415	455	463	
"Laggers"						
Retail Trade \$Mil.	1,351	1,342	1,354	1,361	1,388	
Consumer Credit \$Mil.	1,723	1,721	1,701	1,688	1,685	

Source: D.B.S.

Looking first at the leading indicators, we find that both prices of industrial common stocks and new orders of capital goods rose persistently during the period February to May and declined thereafter. By July the prices of stocks were slightly below their April level. The decline in June and July followed a seven-month period of sharply rising prices. The decline may thus reflect only an adjustment to the rapid increase rather than signal a turning point. New orders of capital goods may also hold rather than continue to decline. This is suggested by the federal government's mid-year review of private and public investment intentions for 1961. The review indicated that by May or June plans for spending on all fixed investment in 1961 had been raised slightly since the start of the year. Also, some favorable effect should

arise from the higher first-year, capital cost allowances on outlays in labor surplus areas, and under certain conditions on new assets acquired for use in Canada, which were announced by the Minister of Finance in his budget speech of June 20.

The "coinciders" indicate where we were in the months shown. Both the index of industrial production and the index of unemployment were on the up-trend from February on. By May the index of industrial production had reached the level from which it had declined after January, 1960. Unemployment declined despite some increase in the labor force since the early months of the year. Exports rose rapidly in March and April but declined in May. Some improvement in basic exports in ensuing months should be reported. The United States has been experiencing a strong recovery to which armament reaction to the Berlin crisis will add impetus. Following the completion of natural gas and iron ore projects, exports of these commodities are expected to increase. The large contract for sale to China will continue to bolster exports of wheat. And of course the lower foreign exchange value of the Canadian dollar will provide general stimulus to foreign sales. The dollar was declining in value before the announcement in the budget speech of the government's intention to push it lower. Since May it has declined by some 4—4½%. A cloud in the export picture is the United Kingdom. The austerity program begun in late July for the purpose of improving the balance of payments is not favorable to larger Canadian exports. If the negotiations for Britain's entry into the Common Market prove successful, export problems can be expected to arise for newsprint, aluminum, wheat, and other products. Nickel and asbestos should be unaffected because they enter both the United Kingdom and the Common Market duty free. However, a complex problem in negotiation lies ahead so that the immediate impact upon Canada, if any, should be upon capital investment rather than sales. Imports for the period followed an irregular pattern. They reached their lowest seasonally adjusted value in many months in March, \$415 million, and rose thereafter. The decline in the Canadian dollar will have some restraining effect upon further increases.

Retail trade, a "lagger", declined initially in the post-January period. At a low of \$1,342 million in March, seasonally adjusted monthly sales rose by \$46 million by June. Over one-half the increase occurred in the last month with a far more than proportionate rise taking place in Ontario, indicating some anticipation of the sales tax forthcoming in September. National sales of motor vehicles rose persistently during the March to June period and thus were on the up-trend before the budget resolution for the removal of the 7½% excise tax on passenger cars. From February to June the second "lagger", consumer credit, was on an uninterrupted down-trend. In June, however, the decline tapered off, reflecting the sharp increase in retail sales.

The pattern of the selected indicators has been one of revival with the leaders, coinciders, and lagers substantially performing according to classification. The data to date, however, indicate that the recovery has been modest.

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PLANNED COST REDUCTION AND CONTROL

*by R. W. Keyes,
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In this paper, the author stresses the importance of an integrated approach to cost control, in which all cost-cutting activities are viewed in relation to their effect on other sectors of the business. To accomplish this, he recommends certain steps to a well-planned overall program of cost reduction and control and outlines the contributions of the various departments within the master plan.

GENERALLY, North American business is credited with having done an outstanding piece of work in the organization of resources for production purposes. Economists are quite satisfied that we have not accomplished nearly as much in the field of distribution and/or marketing.

Yet it has been estimated that distribution costs account for about 51 per cent of the final product cost to the customer. This does not mean that the average firm incurs its total costs in this ratio, but that, if it did manufacture and sell its production in the final market, its costs would be in this ratio.

What are distribution costs? One definition would have these as all costs necessary to get the order from the customer, deliver the goods, account for these goods, and to collect the account. This is a reasonably broad definition but not the broadest possible, because in the final analysis marketing begins with the determination of customer wants in the initial planning for market opportunity. So, in one sense, all justifiable costs are distribution costs since, theoretically, the objective of the firm is to maximize profits as this can be done only through product sale at a price greater than product cost. On the other hand, it could be argued equally as well that all justifiable costs are production costs, since implicitly the meaning of production according to the economist is the production of utility. The economist recognizes four types of utility—form, time, place, and possession. Form relates to manufacturing; the balance to marketing.

AN INTEGRATED APPROACH TO OVERHEAD COST CONTROL

This is a rather long route to take to make the point that, by and large, with the exception of direct labor and direct material (i.e., manufacturing value added), all costs incurred by a manufacturing organization can be deemed as overhead. It is the control of overhead costs relating to the return-on-investment concept on which the balance of this paper will dwell.

Mr. Keyes is Principal and Director, Western Division of Payne-Ross Limited. He was educated at the University of Manitoba (B. Com.) and the University of Toronto (M. Com.) He has held positions with the North American Life Assurance Company; the Institute of Business Administration at the University of Toronto, where he conducted several courses in Finance; Imperial Oil Limited; and the Manitoba Hydro-Electric Board. He assisted in the preparation of the Manitoba Government brief to the Royal Commission on Energy and in the Winnipeg Chamber of Commerce brief to the Royal Commission on Price Spreads. He is also a member of many clubs and organizations.

Firstly, what are overhead costs? Overhead costs are many things to many people. Some businessmen fear them, and make every effort to keep them at a minimum, particularly during the kind of economic times under which we are operating. Some accountants, in turn, find overhead costs a nuisance and merrily divide and distribute them in various ingenious ways over certain measured activities. I am going to say that they are all costs other than direct labor and material.

Secondly, what is overhead control? I define it as cost determination, collection, reporting to management, and action by management to reduce such costs in order to yield the most effective utilization of all corporate resources—or in other words to maximize the return on the corporate investment.

Effective overhead control is becoming more and more vital because of the speed of events and the fact that more rapid change is occurring daily. So a planned program of cost control is, to me, a dynamic approach to overhead control.

While we must practically take a segmented approach to the collection of costs of any business operation, we must have a unified total concept whereby the various segments can be integrated into one total framework for management purposes. Without this integration, the cost of overhead control becomes excessive and results questionable.

If all costs other than direct labor and materials are viewed as overhead, then, surely we must re-examine the widely-accepted approach that overhead costs must always be kept to a minimum. Furthermore, the thought that overhead is "bad" must surely be re-examined. The proper performance of these various functions, defined as overhead, is vital to any business organization, and the approach that we hear so much of these days—"we must get rid of some people"—is completely erroneous and badly conceived.

Let's take some examples. A curtailment of selling and advertising effort in a declining market may be the very thing to put a company out of business in those product lines where this "bad" overhead has been eliminated. A reduction or elimination of some research activity may be far more detrimental to the overall profit position of a company than any possible benefits of short-range savings, if that company is dependent on new products for maintaining its competitive position.

As indicated earlier, economists have little difficulty with the concept that value is added by time, place and possession utility (and this is the key contribution of the marketing function), but often they are not joined in this by those who universally can understand that value is added to a product through the application of direct labor and direct material. So we see many accountants and managers who, when sales decline, recommend reducing their advertising budget, weaken their direct selling effort, and fail to spend the money to eliminate a quality control problem. An examination of the facts of the case might show that sales are dropping off because of poor quality and inadequate selling coverage. Surely the approach taken by these managers and endorsed by their accountants, who are looking solely at the immediate dollar effect, is most inadvisable and ill-conceived. So in a planned system of cost reduction and control, each element of overhead cost must be considered in relationship to its individual long- and short-range contribution to the overall profit objectives of the company. This means that the profit contribution of each element of cost must be considered against the backdrop of all other elements of cost and of revenue. (For example, one large wholesaler decided to eliminate a

teletype installation at a branch because the cost was considered unwarranted. This teletype installation was used mainly for quick communication with the main warehouse to fill shorts on orders. These arose because of the much smaller stock carried of necessity at the branch. The result was—certainly a reduction in direct cost to the branch—but an analysis showed a decline in branch gross margins because the manager took action to fill some shorts on orders through local purchase at higher cost. The analysis also showed an indirect but much more serious long-range implication—i.e., a rise in shorts on orders at a growing dissatisfaction amongst the trade with the service being provided by this company. The teletype has been put back—shorts are declining, but it remains to be seen if the erosion in sales through dissatisfaction can be recovered.)

PLANNING FOR OVERHEAD COST CONTROL

Now how do we plan to secure overhead control? Let me suggest six basic steps:

- (1) Establish company objectives and targets
- (2) Develop detailed programs
- (3) Organize resources to meet the objectives
- (4) Establish department standards of performance to match programs
- (5) Develop a system of budgets
- (6) Report on performance

The first step in any overhead control system is the establishment of corporate objectives and targets. These firm objectives should be in sufficient detail to provide for the most efficient allocation of resources, both physical and human. This blueprint for action can then be translated into dollars and developed into approved budgets—operating, capital and cash, and into pro forma financial statements.

In this process, we must ensure that the company organization is so arranged that it is designed to meet the company's long- and short-range plans. If it isn't, changes must be made. And, of course, at this point our system of accounts and our system of control must be changed to meet these new plans and changed objectives. So often a company will make organizational changes, and then not follow through with adjustments in its chart of accounts! If the company has been on a system of responsibility accounting, management has lost its performance measures through organizational changes. Accountants can play a major rôle in providing management with this control. They should ensure that these charts of accounts and other systems and procedures are continually revised in the light of changing management requirements.

Budgets should be established and maintained with a minimum of change. If the company's program is well conceived and the information has been properly developed, then budgets need be reviewed only infrequently in the light of experience.

All this suggests that if the company's plans are carefully thought out and alternative courses are considered, there is an optimum level of operations in terms of revenue and costs which will yield a maximum return for the corporation on its investment for any level of business activity. Despite this, there is a most serious temptation in periods of business reversal to curtail expenses drastically, even if the effect of this curtailment is more serious in the long run than any aspect of short-range gain. A common attitude is—"let's cut out additional employment." If this means that the recruitment of able young men is cut off then, in my opinion, the company has made a most tragic error. Another error, which has been touched

upon already, is a reduction in advertising and public relations expense. Certainly some of this expense is variable in the normal sense, but to set an arbitrary per cent of net revenue maximum, without an examination of the purpose, is like setting a 50 mile-per-hour maximum on all inter-urban trunk highways and on all segments of these roads.

SPECIFIC AREAS FOR IMPROVEMENT

Let me outline some specific areas in which some *planning* for cost reduction might be undertaken in this general concept of overhead control.

The ideal cost-cutting situation would be found in an organization that is efficiently run and in which day-to-day details and overall policies are so efficient that not one penny is wasted. Cost-cutting then becomes a philosophy and an attitude directed at assuming that all the latest ideas and equipment are adopted to keep the machine running at peak efficiency. Unfortunately, and despite the fact that I have been talking about a planned program of cost control, this situation never arises.

What can marketing management do to plan for cost control and, in fact, for cost reduction?

One of the first areas to consider is whether or not profit responsibility ought to be passed over to field management. This is most desirable if you have a field force adequately trained in, and cognizant of, the factors impinging on profits. If not, there is a grave danger since an over-zealous field manager can give away profits very quickly through price concessions.

The second thing which should be considered from the corporate marketing management point-of-view is the elimination of unprofitable customers. This means an examination of the profitability of individual product lines. The first place to look is at those customers whose individual orders are small or whose overall volume is low. But again, remembering the implication of one element of cost on another when considering the elimination of some of these unprofitably small accounts, the effect of their contribution to overhead cost on other business must be examined.

From the sales management point-of-view, there are certain things which can be done. The first of these is an examination of individual sales territories; perhaps a re-alignment is necessary or the overall size of certain territories needs to be reduced. This can cut out some high-spotting and will reduce travel time and travel expense. Such a re-alignment can mean that certain areas would be left uncovered. The implication of this must be examined, and a decision made between no coverage and the engaging of dealers to cover these low-volume areas. Another point which ought to be considered, particularly if profit responsibility is to be passed out by corporate management to sales management, is that no change can be made in the price schedule by salesmen without sales management approval. In a period of re-trenchment, opportunities should be taken to eliminate the deadwood in the sales force, and it is also a good time to shift to a sliding commission schedule related to contribution to profit.

From the field management point-of-view there should be a close watch kept on out-of-pocket expenses, car maintenance and car use. The field manager should be watching time utilization and should stress the desirability of the appointment sales call. The control of promotional sales material should be emphasized.

In some recent reading, the following quote caught my eye: "It would perhaps be better if all marketing organization charts were messy and even the competition couldn't understand them." What this man was trying to say was that in any planned program you should organize to meet your customers' requirements. You should look at the market potential and ensure that you have set yourself up to get the maximum. In other words, it is important to the company to decide whether or not you want 100 per cent of 25 per cent of the market, or 25 per cent of 100 per cent of the market. It's probably much better to get 100 per cent of 25 per cent of the market since this can be done at a much lower distribution cost if market conditions permit.

STANDARDS IN THE OFFICE

Finally, in the field of administrative expense, and by way of introduction, let me again quote—"every office manager should be dedicated to the elimination of his function by combining, eliminating, and substituting until the cost of office management is negligible." This criterion has a good deal of merit. Statisticians and, in fact, economists have been having a field-day comparing the number of office workers with the number of production workers. For example, in the lumber industry, office workers on the average make up 18 per cent of the total company work force; in the textile industry this is 10 per cent; in the mining industry five per cent; in the construction industry four per cent; in the utilities, generally, 34 per cent. Now this is all very interesting information but useless unless it can be applied. Unquestionably every company needs a clerical staff of sufficient size to do the job of getting current information to management and satisfying customer requirements through adequate service.

There is a great similarity between the management of an office and the management of a factory when one considers that the concept of an office is really not much different from a manufacturing plant. The reason for an office is the manufacture of an end product of service to the corporation and to its management. The reason for a factory is the manufacture of a product for sale. The same managerial techniques apply to both. Just as the plant manager must do, so the office manager must plan, co-ordinate and control. He must establish the program, the schedule and the budgets, both as to dollars and to time required to achieve his objectives. As one of our people has said on several occasions—"the office manager to do a proper job, must be an industrial engineer, a salesman, an administrator, a leader, a cost accountant, and a psychologist"—a large order. To be effective in all these fields requires ability, tact and understanding. Unless a manager has some benchmarks against which to measure performance, particularly in a period when he is being asked by management to exercise a greater control over operating cost, he is liable to be somewhat at sea.

This is a difficult area in business in which to secure standards, but it is possible, and a good deal of work has been done in setting up pre-determined motion-time values for various operations. Unless you know your costs, you can't secure savings.

If these values are not available nor applicable to a specific operation, then standard industrial engineering practices can be employed to secure the most efficient set of systems and procedures.

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AN EXAMPLE OF WORK MEASUREMENT

One large United States life insurance company has reported that it has spent upwards of a year and a half on a work measurement program, the results of which already are a ten per cent saving in office administrative costs. This magnitude of saving is not available to all companies. This particular type of organization, however, is simply a factory for the output of paper.

The objectives of this company's measurement program were:

- (1) To acquire cost information
- (2) To effect cost control
- (3) To ensure cost savings

As has been indicated, you can't cut costs unless you know what they are.

Ancillary to this analysis, specific reductions in clerical costs have been obtained because the work measurement program has turned up:

- (1) Better scheduling
- (2) More balanced work loads
- (3) A more accurate determination of manpower and equipment needs
- (4) A more accurate evaluation of performance
- (5) Increased overall effectiveness

While the program is not yet complete, it has achieved to date better supervision because the supervisors can now:

- (1) Identify various processes in their operations
- (2) Describe these operations
- (3) Establish standards
- (4) Determine effectiveness against these standards
- (5) Plan improvement
- (6) Raise performance
- (7) Report results
- (8) Control production

It has also established a basis for improved costing and system of cost control.

CONCLUSION

Businesses today are being called to act and react to situations on a much broader front than was the case prior to World War II. More rapid systems and methods of communication have ensured this. A planned program embracing corporate objectives, the organization of resources to meet these objectives, and the establishment of standards of performance to measure the results of corporate organization, surely are the methods which business should employ to maintain its competitive position and thereby meet the profit squeeze.

PAYNE, PATTON & PUGSLEY

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LOOKING AHEAD

How will automation affect unemployment? The immediate effects are not as serious as commonly believed, the facts would suggest, and over the long haul automation will undoubtedly boost productivity and employment. Currently the subject of intense study in Canada and the U.S., investigation of the effects of automation has produced some not unencouraging figures:

- According to a *Factory* survey of over 500 U.S. plants, only two per cent of the manufacturing work force will be displaced by automation in 1962 (*Factory*, Sept. 1961). This low figure seems to be corroborated by a study made of the largest U.S. companies using computers. At the end of one year's computer operations, over half of the employees were still in their previous positions and about a third of those whose work had been automated were doing other work in the same office. Retirements, deaths and voluntary resignations accounted for 16% and only one per cent had been laid off.

- The most highly automated industries on the whole have increased not only their production but their working force at a better than average rate over the long run. The Canadian chemical industry, for example, had increased its employment by about a third between 1949 and 1960, while employment in manufacturing as a whole had increased less than ten per cent.

- In the field of EDP where results are precisely measurable, the number of digital computers in Canada increased from seven to 89 between January 1957 and January 1960. Working an average 51-hour week, these installations have introduced shift working into the traditional one shift, nine-to-five working day of the office. About 20% of all installations were being regularly operated on two or more shifts. It was estimated that by January 1960 EDP had created 1,216 new full-time jobs.

- Automation has given birth to a whole new range of professions and industries such as electronics. The Canadian electronics industry employs about 18,000 people and has an annual turnover of over \$400 million.

In essence, it would appear that the problem is not automation itself but the rate of speed at which it is introduced into the economy. Automation increases the proportion of highly-skilled, technical jobs available and the rate at which it is introduced should be slow enough to provide for the necessary occupation shifts and re-training. (*Can. Imp. Bank of Commerce Letter*, Summer 1961)

OF GENERAL INTEREST

Canadian tobacco sales in 1960 amounted to some \$90 million and production to 197 million pounds. Most of this came from Ontario which supplies the greater part

of Canada's 6% share of the world market for flue-cured leaf. (*Alcan News*, Aug. 1961)

Computers that talk back may nullify one of automation's obvious advantages over manpower. Computers can now be programmed to accept phonetic speech sounds from punched cards and synthesize them into intelligible human speech or song. Computer talk will be expensive, however, since it takes 25 minutes of computer time to produce one minute of synthetic speech. (*Man. Rev.*, Sept. 1961)

To provide a job for one manufacturing employee in terms of average capital investment cost \$13,377 in 1960. This is more than double the figure for 1948 which was \$6,433. (*Industry*, Sept. 1961)

The top money-makers in Canada in 1959 in order were: doctors and surgeons with an average annual income of \$15,737; engineers, architects, \$14,982; lawyers, notaries, \$14,123; dentists, \$11,605 accountants, \$11,033. The biggest percentage change in income since 1949 was registered by dentists, whose average income rose 102% in the ten-year period. (*Tax Statistics, Dept. of National Revenue*)

Extent to which immigration supplies skilled tradesmen to Canadian economy is indicated by these figures comparing percentages of apprenticeship training completed among native Canadians and immigrants:

PERCENTAGE OF TRAINING COMPLETED

	Canadian	Immigrant
Tool and Die Makers	48%	75%
Sheet Metal Workers	12%	83%
Floor Moulders	58%	89%
Draughtsmen	5%	46%
Electronic Technicians	0%	26%

(*Saturday Night*, Sept. 16/61)

ON THE PERSONAL SIDE

Rear-end collisions caused 32% of 7,000 bodily injury claims filed, one insurance company reports, with "tailgating" the principal cause. A good rule to follow, experts say, is to multiply your speed by two and stay that many feet behind the car ahead. (*Bus. Week*, Sept. 9/61)

You are likely to live longer if you are successful in your work, if you are small and frail rather than husky and robust, if you work with your mind rather than your muscle, if you are of placid rather than energetic nature, longevity studies show. This must be quite a blow to the physical culture proponents. (*Cloke's Modern Secretary*, Sept. 1961)

Steam baths in your own home are now possible with a new electric heating unit being manufactured in Canada. Prerequisite is a space 8 ft. by 6 ft. in your basement where an airtight room can be built. Initial installation cost: \$675. (*Fin. Post*, Sept. 16/61)

Home intercom unit now on the Canadian market permits two-way conversation between master control unit and any other room in the house. Integral radio unit is available to pipe music to other locations or yard, remote unit plus high volume can be used to call children in from outdoors. (*Can. Bus.*, Sept. 1961)

LEASE OR BUY?*

by W. G. Zeller,
Assistant Vice-President,
First National Bank of Oregon,
Portland, Oregon.

Leasing has been an established method of acquiring capital goods for many years, the author points out, and will have even more important implications in the future. In this article, he weighs the pros and cons of automobile and truck fleet leasing as compared with company-owned transport.

LEASING, over outright ownership, is not a new concept for acquiring capital goods. This practice of providing physical plants for industry has been accepted for many years. The sale and "lease-back" of industrial facilities is familiar to all of us. One of the outstanding examples of this practice is the procedure followed by one of the largest food chains in the United States. When this company needs a new retail store building, it acquires the real property, erects the building according to its own specifications, then sells the entire "package" to an investor and "leases" it back on a long-term basis. This food chain finds that it is more profitable to use its capital for fast inventory turnover than to allow it to become frozen in fixed assets such as real estate and buildings.

In the post-World War II years we have seen this practice of acquiring capital goods extended not only to real estate and buildings, but to such items as plants, materials handling equipment, railroad cars, airliners, office equipment—including rugs and drapes, and passenger car and truck fleets. As a matter of fact, today one can lease about anything he desires, so long as his financial responsibility justifies the credit. This is not so startling when you realize that we have leased telephones and other utilities for more years than most of us care to remember. Joseph J. Thursh, a marketing and merchandising expert, and Vice-President of Design Dynamics, recently said,

"The nation is heading toward a rental economy."

He claims there is a revolution coming in our distribution system, and sums it up this way:

1. Industry's biggest problem is moving goods it produces.
2. In an age of gadgets and mass production, instalment credit has gone about as far as it can go.
3. Consumers will have to rent instead of buying to consume the flow of goods from the nation's factories.

Thursh contends that our whole concept of ownership is a fetish, and stated further:

"If a man buys a car and takes 30 months to pay, he doesn't really own it until the final payment; then chances are he's ready to trade it in and go into debt again for a new one. Is that much different from renting?"

Applying Mr. Thursh's theory to home loans, which in recent years have had maturities up to 30 years, it becomes increasingly less difficult to agree with his contention.

*Address to Portland, Oregon Chapter, National Association of Accountants, September 20, 1960.

Mr. Zeller is presently Assistant Vice-President of the First National Bank of Oregon, Portland, Oregon. For many years, he has been directly concerned with the problems of financing equipment purchases for industry and consumers.

Auto Leasing

This, then, leads us into the matter of leasing versus buying. Since the principle of leasing is essentially the same, whether it be plant equipment or an automobile fleet, this discussion will be devoted entirely to the leasing of passenger car and truck fleets. A distinct difference exists between leasing and renting an automobile, yet the relationship is so close that one is often mistaken for the other. Accordingly, this difference should be pointed out:

AUTO RENTAL is defined as a car or truck contracted for on a short-term basis—a day, a week or month. The fee is based on a flat rate per day, plus a charge for insurance and actual miles driven.

AUTO LEASING is defined as an automobile or truck rented on a long-term basis, usually 12, 18, 24 or 36 months. The fee is based upon a depreciation plus cost formula which is paid monthly during the term of the lease.

The auto leasing industry came into being prior to World War II. At that time just a few well-capitalized companies engaged in the practice. Immediately following the War, when industrial expansion was so prevalent everywhere, auto leasing firms expanded at an annual rate of from 20 to 30% in number of units owned. As an example, leased passenger cars increased from 80,655 units in 1950 to 450,000 in 1959. With such a tremendous growth it was only natural that many lease operators entered this new business, under-capitalized and inexperienced. Accordingly, many fell by the wayside, with the net result that the entire auto leasing business became more stabilized as the experienced and better-financed operators emerged from the chaos. Today it is an important segment of the national economy.

Before we can examine the advantages and disadvantages of auto leasing from the standpoint of the lessee, we must understand the three basic systems by which industry provides its automotive transportation. These are:

1. Company ownership
2. Employee or salesman ownership
3. Leasing

Company Ownership

Under this system of providing industrial transportation, the company purchases, owns and operates a fleet of automobiles used in the conduct of its business. There are variations to the exact operation of such a system; however, the general procedure is to turn over the direction of the automotive fleet to one of the executives, quite often the comptroller. He in turn supervises purchase of the vehicles, assignment to personnel, and over-all operation of the fleet. This system requires a capital investment in the automotive equipment, the amount being governed by the number of units in the fleet.

Employee or Salesman Ownership

This system of providing company transportation is based on the salesman or employee owning the automobile which he drives in the performance of his duties, and for which the firm compensates him in some manner for mileage driven on company business. Under this system, owning a late model automobile is a prerequisite for employment in positions requiring travel. Methods of compensation for mileage vary from one company to the next; however, the basic principle remains the same, in that the company does not make a capital investment in automotive

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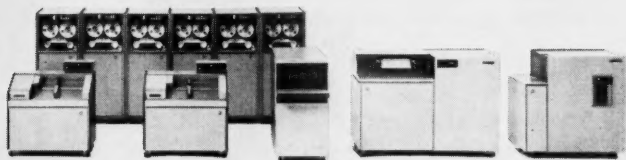


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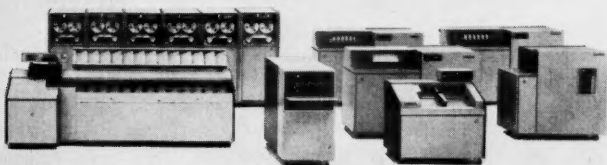
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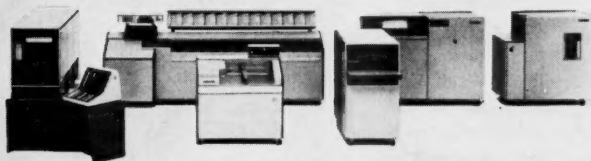
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equipment, since the individual employee must furnish the necessary vehicle. In effect, under this plan, the company leases automobiles from its employees rather than from a leasing firm.

Leasing

Under this system, the company provides transportation required in its business by leasing the automobiles on a long-term basis from a fleet leasing company. There are many variations in leasing plans available. We find, however, that they fall into two main categories, namely:

THE FINANCE LEASE whereby the lessor furnishes only the car; and the insurance, repairs, and operating expense are furnished by the lessee.

THE FULL MAINTENANCE LEASE whereby the lessor furnishes everything; in many cases everything except the driver. This includes such items as insurance, tires, licences, maintenance and repair.

So far as the lessee is concerned, auto lease plans basically are the same, in that by the terms of the lease agreement, the lessor agrees to furnish a new model automobile periodically, depending upon the terms of the lease. The company, in turn, agrees to pay a stipulated fee, monthly, for this service. Through leasing its automotive equipment, a company does not make a capital investment to provide transportation.

To determine whether a company should lease an automobile fleet rather than own it, we must know what it is trying to accomplish. Does it need additional capital; is it looking for a more economical operation of the fleet; does it wish to free its executives of administering the fleet, etc.? Only after we know the company's objective in this direction, can we determine which course it should follow. After this objective is determined, then we must look at the advantages and disadvantages of the three systems of providing company transportation and decide which one is most suitable to our purpose.

Examination of the pros and cons of fleet leasing must be done categorically, as advantages and disadvantages of one of the basic systems of providing company transportation would not necessarily apply to another. Accordingly, leasing versus company-owned, and leasing versus salesman-owned automobiles must be discussed separately.

ADVANTAGES OF LEASING VERSUS COMPANY-OWNED AUTOMOBILES

1. Eliminates Capital Investment

Leasing frees capital for more productive use in the company's business; not only does it release capital frozen in a fleet, but it enhances the balance sheet, which tends to increase the borrowing power of the company. This often is the prime reason for leasing rather than owning a fleet. Frequently companies need additional capital and cannot borrow it because of the condition of their balance sheet. Working capital ratios are important factors in determining a company's ability to operate profitably, and they are considered in extending credit. Accordingly, then, shifting assets from a fixed to a current position immediately improves the working capital ratio proportionately, and often puts the balance sheet in shape so that credit can be extended.

Using funds so released, for inventory turnover or expansion of facilities, usually produces more income than allowing them to remain frozen in fixed assets.

As an example, one of the largest telephone companies in the U.S., as early as 1953, sold its fleet of 12,000 vehicles and leased it back. Based on a conservative

figure of \$2,500 per vehicle, this immediately increased the company's working capital by \$30,000,000. Many national companies own fleets valued at anywhere from three to six million dollars. From this we can see how tempting leasing can be to company treasurers seeking capital funds.

2. Predetermines and Stabilizes the Cost of Operating a Fleet

Annual, semi-annual or quarterly budgets have become a management tool and are employed by all companies in one form or another. When a fleet is owned, it is difficult to budget transportation costs. Monthly expense of operating a fleet generally cannot be tabulated until ten to 15 days after month-end; therefore, even on a monthly basis, two weeks or so elapse before the operating expense for the preceding month is known. Accordingly, an annual budget of transportation costs for the company which owns its fleet cannot be accurate, as usually it will either be overstated to allow for emergencies, or under-stated if such an allowance is not made. As previously stated, examination of the pros and cons of fleet leasing must be made categorically. Accordingly, we find differences between the "Finance" lease and "Full Maintenance" lease as follows:

- (a) *Finance Lease*—under a Finance Lease a company's transportation cost cannot be predetermined with any greater accuracy than if the fleet were owned, since the lessee provides repairs, tires and maintenance.
- (b) *Full Maintenance*—under a Full Maintenance lease, the company can predetermine transportation costs with considerable accuracy, since generally the lessor furnishes "everything except the driver."

3. Releases Executives and Other Personnel from Supervision and Administration of an Automobile Fleet

Generally, industry executives have been developed within the organization and, accordingly, their experience and training has been directed toward the profitable operation and conduct of the company's principal business. To divert an executive from an area of his expert competence and assign him responsibilities for transportation operations, places him in a foreign field. He not only finds himself supervising the operation of an automotive fleet, but he is also confronted with buying and selling automobiles which, in effect, puts the firm in the automobile business. This factor of a company's operational expense is often not given consideration, due to the difficulty in converting it to dollars and cents. Again, we must review each type of leasing separately:

- (a) *Finance Lease*—under this lease plan, a company does not do away with executive time necessary to administer the fleet, since only the capital investment is eliminated.
- (b) *Full Maintenance Lease*—under this plan the time and energy of executives and administrative personnel can be released for company business, since administration and record keeping on this plan are at a minimum.

4. Charges are Tax Deductible

Leasing companies maintain that lease payments are tax deductible as an operational expense. Usually a leasing company, by the very nature of its business, is permitted a faster write-off in depreciation than companies in other industries. This creates an advantage which is passed on to the lessee. An argument commonly used by lessors is that rent has traditionally been considered an operating expense and is

included among the costs of doing business. If it is to be considered a liability merely because it will continue in the future, why should the same reasoning not apply to all expenses of a continuing nature such as heat, electricity, telephone, etc.?

There is so much controversy on the tax matter, as regards leasing, that no attempt will be made here to develop the subject further.

5. Eliminates Having Surplus Units for Peak Demands

Many companies which own their fleet, especially trucks, keep spare units on hand to guard against disruption of service in emergencies, or to meet seasonal peak demands. Leasing eliminates tying up additional capital on such units, as the lessor can usually provide emergency units as necessary.

6. Fleet Units are Kept in More Presentable Condition

Since all drivers of company-owned vehicles do not have the same degree of pride in the appearance of their units, leasing companies, on a "Full Maintenance" basis do a much better job as they have almost daily control of the vehicles.

7. Eliminates Reciprocity

Samuel J. Lee, a widely recognized authority on company transportation, said in his book, *Automotive Transportation in Industry*,

"The evils of reciprocity have long plagued the management of many companies.

The leasing arrangement is an excellent way to get rid of this nuisance."

Many companies do business with automobile dealers. Accordingly, they are constantly under pressure to reciprocate by purchasing their fleets from these dealers. Leasing definitely eliminates this type of pressure.

DISADVANTAGES OF LEASING VERSUS COMPANY-OWNED AUTOMOBILES

1. Leasing is More Expensive Than Owning

Based on surveys reviewed, we must conclude that, generally, leasing is more expensive than owning a fleet. Especially is this true when the company has a well-managed fleet. The reason for this is that the leasing company must build enough margin into a monthly rate to provide for maintenance, repairs, etc., on an average basis, to insure an operating profit. This, naturally, tends to keep the rate high.

A recent survey indicated that 69 companies operating their own fleets showed their costs averaged 8.5 cents per mile. The same survey reported 51 companies operating leased fleets showing average costs of 8.75 cents per mile.

2. Too Expensive for Low-Mileage Operation

Surveys prove conclusively that a low-mileage operation is more costly under a lease system. Samuel J. Lee, in his book, compares fleet-leasing costs with various allowances, and shows that company-owned vehicles driven less than 17,000 miles annually can be operated less expensively than leasing. We find that the cost under leasing decreases proportionately as the mileage increases.

3. Poor Service from Leasing Companies

There are many small leasing companies which cannot give good service because they are either inadequately financed, inexperienced, or a combination of the two. Firms leasing from smaller companies often complain that poor service on emergency repairs, car replacement and such, is so inconvenient as to make leasing undesirable.

This, of course, does not hold true of the large, well-established firms which have many companies seeking their services.

4. Commitments to Lessor are for Too Long a Period

Long-term lease commitments are a distinct disadvantage over company-owned fleets. Since many leases are written for as long as 36 months, one can readily see where a company often finds its vehicle needs decreased long before expiration of the lease. Most leasing agreements stipulate minimum leasing periods; therefore a company could find itself obligated to lease units beyond its actual need.

ADVANTAGES OF LEASING VERSUS EMPLOYEE-OWNED AUTOMOBILES

Fleet leasing has definite advantages to a company over employee or salesman-owned automobiles. These are as follows:

1. Leasing is More Economical on High-Mileage Cars

As already pointed out, the cost of leasing decreases as the mileage per unit increases. Surveys show that of 122 companies surveyed, the average cost per mile for employee-owned automobiles was 9.5 cents. This versus 8.75 for leasing. Again referring to Samuel Lee's book on *Automotive Transportation in Industry*, we find that savings in leasing over employee-owned cars start at \$174.25 on the car driven 17,000 miles per year and increase to \$1,626.73 on the car driven 40,000 miles per year. This is based on a mileage allowance of only 8 cents per mile. Accordingly, the savings in leasing would increase, as the mileage allowance to employees increases.

2. Leasing Allows Company to Select Personnel on Basis of Qualification

When a company depends on employees to furnish automobiles used on company business, it automatically makes ownership of an automobile a prerequisite for the position. Often prospective employees who possibly are better qualified for the job are lost because they cannot meet the requirement of owning a late model automobile. Accordingly, this means that the company is not securing the services of the best-qualified personnel in those jobs requiring travel.

3. Leasing Eliminates the Problem of Fair Mileage Allowances

Constant haggling with employees over a fair mileage allowance constitutes a major problem for many companies. Invariably, the employee who owns and furnishes his automobile for company travel feels the mileage allowance is too low. This is a constant source of irritation and dissatisfaction, which can be almost entirely eliminated by leasing.

4. Leasing Eliminates Lost Time Due to Repairs and Replacements

Under an employee-owned system, much time is lost for repairs and other emergencies. This usually is not the case in leasing since most leasing companies will provide an emergency vehicle while prolonged repairs are being made. Further employee time is lost in shopping for a "deal" when the unit is being traded in. Leasing eliminates most of this and permits the employee to devote all of his time to conducting company business.

5. Leasing Permits Better Control, Appearance and Performance of Equipment

Employees often do not have the necessary funds to keep their vehicles in top condition and appearance. They hesitate to make necessary expenditures. The consequence is company representatives driving ill-appearing cars, and having numerous

breakdowns causing them to be off schedule. Full Maintenance leasing eliminates this problem since maintenance and emergencies are usually provided for in the lease agreement.

DISADVANTAGES OF LEASING VERSUS EMPLOYEE-OWNED AUTOMOBILES

1. Added Administrative Problems

Under an employee-owned system, administrative problems are at a minimum. This does not hold true on leasing with either the "Finance" or "Full Maintenance" type. Both would require administration to a much greater degree than under an employee-owned system.

2. More Expensive on Low-Mileage Cars

This has already been covered and needs no further elaboration.

3. Fixed Rental Costs

On the employee-owned vehicles, the company pays mileage only for actual miles driven. On a leasing plan the monthly costs are fixed, generally regardless of mileage. As mentioned already, a company which has found its need for cars reduced could find it is obligated for the full leasing term, despite the fact it may not have further use for the units. This does not happen under the employee-owned system.

4. Employee Dissatisfaction

Often employees furnishing their own automobiles drive more expensive cars than would be furnished under a leasing program. When leasing, the company usually contracts for the least expensive makes and models, simply because the rate is lower. When employees must drive cheaper, stripped-down models, with no color choice, dissatisfaction increases, and pride in ownership is lost. This does not occur when the employee furnishes his own car.

SUMMARY

In summary, then, we find that fleet leasing is not a panacea for all transportation problems. Leasing in its various forms does have distinct advantages over company-owned or employee-owned fleets. It also has distinct disadvantages in each category. The result is that no hard-and-fast rule governing the advisability of fleet leasing in preference to the other two methods of providing company transportation can be established. The company contemplating fleet-leasing must determine its objective, weigh the respective advantages and disadvantages, and then decide accordingly. The well-established fleet-leasing companies will admit that leasing is not the answer to all transportation problems. This point is so well established with them that they will, upon request, conduct a survey of the particular situation, and their analysis will determine whether leasing is indicated to accomplish the desired results.

For further reading

THE PROS AND CONS OF LEASING, by Kenneth R. Lavery, *The Canadian Chartered Accountant*, Feb. 1961.

LEASING EQUIPMENT—WHAT ARE THE ADVANTAGES? Frank S. Lyndall, Jr., *N.A.A. Bulletin*, Aug. 1960.

SHALL WE OWN OR LEASE OUR AUTOMOBILES AND TRUCKS? by Charles J. Smith, *N.A.A. Bulletin*, Sept. 1959.

ACCOUNTING PROFIT: MYTH OR REALITY?*

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Accountants, economists and government all have their individual concepts of profit and how it should be measured. This paper attempts to define the concept of profit that will be most useful as a basis for economic decisions, then proceeds to show how the present methods used by accountants cannot succeed in measuring profits according to this definition. Lastly, it suggests methods of measurement and presentation of accounting profit consistent with the definition adopted.

THE RAPID DEVELOPMENT of great industry in the twentieth century and the pronounced divorce between the owners and the management of enterprise gave rise to new concern about the concept and sources of profit and its economic and social role. With the expansion of enterprise, new accounting methods were developed with the aim, not only of presenting to the shareholders a report on management by the directors, but also of supplying these latter with a method of effective control over operations which were becoming more complex.

The development of statistics by the government demanded a more precise computation for the national income. When analyzing the profit of enterprise, statisticians sought the data they needed in the accounting reports. As these data were not in accord with the economic notion of profit, the accounting results had to be transformed so that they could be incorporated into the national accounts. Divergent views thus were revealed between the economists on the one hand and the accountants on the other.

Disagreement on the concept of profit exists within as well as between the groups. The economists neither agree themselves on a sole notion of profit nor do they admit the accountants' determination thereof. No more do these latter believe in a single concept of profit which may be applicable to all situations.

This is a complicated situation—three important groups, accountants, economists and government, quarrelling over an adequate notion of profit, and each having very decided ideas on how this profit should be measured. The purpose of this paper is to choose from these different concepts of profit, the one most useful to economic decisions.

The paper will be divided into three parts. First, a concept of profit will be sought

*A paper given at a joint meeting of The Controllers' Institute and The Institute of Chartered Accountants, in Hamilton, Ontario. This paper is a resume of Dr. Riverin's book—*Accounting Profit—Fiction or Reality?*—which has been published in French and will be published in English.

Dr. Riverin was recently appointed Economic Adviser to the Quebec Provincial Government. Formerly Assistant Professor of Finance and Business Economics at Laval University, he still lectures there on a part-time basis. He holds degrees from Laval University (M. Com.), New York University (M.B.A.) and Université de Paris (Ph.D.), and is a Chartered Accountant in Quebec. He has also had several years' practical experience in industry and the retail business. Dr. Riverin has been Chairman of Arbitration Councils in Labor Relations, consultant to small enterprises on Finance and Control, a member of the Educational Committee of the Institute of Chartered Accountants of Quebec, and a lecturer for S.I.C.A.'s Executive Development Program.

which might be useful as a basis for economic decisions. Secondly, an attempt will be made to show that the present methods used by accountants cannot succeed in measuring the profit which shall then have been defined. The third part will suggest methods of measurement and presentation of accounting profit consistent with the concept which shall have previously been adopted.

The different macro-economic or micro-economic policies which might be developed from an adequate knowledge of profit will not be discussed, but only a concept and a measurement of profit from which these policies can be elaborated. Moreover, it is quite evident that profit does not constitute the sole element of decision and, in certain cases, it is not even the most important element.

PART I

A CONCEPT OF PROFIT—BASIS FOR ECONOMIC DECISIONS

Accounting today has meaning only to the extent that it permits reporting of the economic progress of a firm and analysis of the resultant consequences. Legislation and equity require that accounting must also furnish the results of management for a given period. However, this concept of a management report must not prevent the furnishing of prospective investors with reliable information on the policies and progress of the enterprise. The shareholders have a right to know the results obtained by the enterprise, but those who possess available capital are equally interested in the way it is faring.

It is desirable, at first, to examine the various concepts of profit in order to find the one that is the most useful. Economists distinguish four categories of income: salaries, interest, rent, and profit. Salaries remunerate work, interest remunerates capital, rent remunerates for land or an economic location. What does profit remunerate? Is it the work furnished by the entrepreneur? Is it the risk that he assumes? Is it the proportion of coordination and of innovation which he contributes? This question has been answered in so many ways that it is not possible to say whether the problem can truly be solved. Professor Samuelson noted with humour that one of his students in going through a series of modern textbooks, found no less than fourteen different definitions of profit.

The economist distinguishes between accounting profit and pure profit: the pure profit is obtained after deducting from accounting profit a sum corresponding to the approximate salary which the head of the firm would have obtained as an employee elsewhere; a sum corresponding to the interest which he would have received had he invested his capital in another enterprise; a sum corresponding to the rental which he would have obtained from his real estate if he had not used it for his own enterprise.

PURPOSES FOR WHICH PROFIT IS DETERMINED

In analyzing the purposes for which profit is determined, one becomes aware that the concept of pure profit is of theoretical interest only and that, in reality, what interests the entrepreneur, is the total net profit of the enterprise.

The fundamental reasons for determining profit are both legal and economic. In computing the amount of profit, the necessary information as to the economic progress of the firm is first obtained. This information indicates the sum an individual or enterprise can spend without destroying his or its initial capital. For legal purposes it is

necessary to compute profit in order to strengthen or obtain respect for the rights of those who might possibly be wronged.

The following list of purposes for which profit is measured indicates the close connection between accounting, economics and law. The amount of profit indeed serves as the basis:

- a) For fixing the income tax rates;
- b) For the legal distribution of dividends;
- c) For measuring the equity of the prices charged by enterprises for goods or services;
- d) For the decisions of the enterprise;
- e) For incorporating the profit in the national income;
- f) For investment decisions.

It can be seen from this list that the basis of the first three purposes is law and that of the last four is economics. It can also be seen that pure profit, even if measurable, would be of no use.

RELATIONSHIP BETWEEN THE ENTREPRENEUR AND THE ENTERPRISE

Undoubtedly, profit can have its source in the assumption of risks by the entrepreneur, but this latter does not merely assume risks while endeavouring to maximize his profits. Indeed, upon analyzing the various roles that he plays within the firm, one quickly becomes aware of the validity of this affirmation. Essentially, the entrepreneur is the one who:

- a) Organizes and coordinates the other factors of production;
- b) Exercises the function of responsibility;
- c) Innovates;
- d) Assumes the risk.

Professor Jean Marchal wrote:

"To satisfy wants, it does not suffice to have available labor, raw material or tools, that is to say capital, in the technical sense of the word, it also is necessary that someone take it upon himself to coordinate all these elements in order to obtain the desired results of alleviating human wants."¹

Just as capital goods have a net productivity, that is to say that they permit the obtaining of more consumer goods by the application of indirect or roundabout production methods, in the same way, the enterprise by uniting under one roof the various factors of production, including capital goods, allows a more intense and more efficient division of work, thus contributing to more rapid economic progress. The enterprise thus adopts the role of economic agent about which Professor Marchal spoke in the preceding quotation. This function therefore deserves a remuneration.

To fulfil this function, it is not necessary that enterprise be privately owned. In a collectivist system, it plays the same role and the surplus resulting from the difference between the revenue and the costs constitutes the savings necessary for the expansion of the economy, just as the undistributed profits of a firm serve to finance its own expansion.

The most promising approach in this research would seem to be, therefore, to define the entrepreneur as the enterprise itself, the profit being that of the enterprise.

¹Marchal, Jean, *Cours d'Economie Politique*, Librairie Dalloz, Paris, 1951.

Rather than consider the entrepreneur as acting through the enterprise, let the enterprise be considered as acting through the intermediary of its officers and employees.

Accounting has always recognized this relationship between the entrepreneur and the enterprise. The net value on the balance sheet represents the investment of the owners or what the enterprise owes them. The profit determined by accounting is the profit of the enterprise which is then distributed amongst the proprietors or re-invested.

When an entrepreneur acquires the factors of production, he does not do so for himself, but to satisfy the requirements for the full exploitation of the production possibilities of the enterprise. The quantity of factors that he utilizes does not depend on him, but on the requirements of the enterprise. Thus the enterprise can be considered as an economic unit independent of the entrepreneur and acting through his intermediary.

A DEFINITION OF PROFIT

Professor Hicks of England, in his book *Value and Capital*, analyzes in a clear and concise manner not only the sense of the word income, but its implications in the behavior of the individual and, by extension, of the firm. Although Hicks uses the word revenue, it could also be termed profit, since his definition corresponds exactly to our idea of this concept. Henceforth, in analyzing Hicks' thinking, the word profit will be used instead of the word revenue.

Hicks first makes a distinction between the "ex ante" profit and the "ex post" profit; the first term expressing the estimates made by individuals or enterprises of their earning capacity during a period to come; the second indicating the results effectively obtained when the period has elapsed. The estimated profits and the past profits, or historical profits as they are sometimes termed, are essential to the aims already noted for which profit is measured. Let us therefore immediately resort to the definitions given by our author to these two concepts of profit.

The "ex ante" profit is . . .

"The maximum sum which an individual (or firm) can spend during the current week if he expects to be in a position to spend an identical sum in real terms during each succeeding week."²

Be it remarked that the profit is measured in real terms, that is, it takes into account possible price variations during the period. Stated more simply, it might be said that the profit is the difference between the initial capital and the capital which will exist at the end of the period, measured in real terms, that is, in present value of the monetary unit. By measuring it in real terms, the real physical increase or decrease in capital is obtained. This amount added to the consumption or to the withdrawals will give the amount of profit for the fiscal period.

The "ex post" differs from the first in that the difference in real terms between the initial capital and the end capital added to the consumption will represent what will have been effectively realized. The difference between the "ex ante" profit and the "ex post" profit is due to the uncertainty of the risks that the enterprise assumes in not being able to foresee the behavior of the economic agents which relate to it and the general economic conditions.

²Hicks, H. J., *Value & Capital*, (French translation) Paris, Dunod, 1956.

HOW DOES THIS DEFINITION MEET THE REQUIREMENTS?

If the aims for which profit is measured are reviewed, one by one, it will be seen whether Hicks' definitions correspond to the purposes enumerated.

- A) *Determining the income tax rate.* The "ex post" profit should be the basis on which the annual income taxes are levied. The "ex ante" profit should be the basis for the income tax rates of the next fiscal period.
- B) *Distribution of dividends.* Here the "ex ante" profit is perhaps more useful, since it would permit avoiding payment of dividends in such an amount as to reduce the firm's earning power.
- C) *Selling price.* Here the two concepts are essential in the case of a lawsuit, the "ex post" concept to ascertain whether the prices have been equitable in the past and the "ex ante" concept to set the prices for the coming periods.
- D) *The decisions of the enterprise.* In this case, it is essentially the "ex ante" profit which is necessary. Data covering the past are useful only insofar as they facilitate the estimating of future data.
- E) *National income.* Both concepts are useful, the "ex post" concept to determine the economic progress of the nation and the "ex ante" concept to serve as a basis for governmental policies, such as monetary policies, fiscal policies, etc.
- F) *Investment.* Again essentially, it is the "ex ante" profit which will permit discovery of the return which can be expected from a projected purchase of equipment or factory building or from the purchase of securities offered on the market.

This analysis demonstrates, in my opinion, that Hicks' concepts really meet the requirements for which one measures profit. Moreover, if the investigation is pursued further, one becomes aware that they also correspond to certain criteria which might help in choosing the right definition of profit. Indeed, the "ex post" and "ex ante" profit being measurable, one or the other can satisfy the needs which motivate profit measurement. Reporting the total profit of the enterprise, they are also in accordance with the concept that the businessman or the accountant has of it.

PART II

THE ACCOUNTING DETERMINATION OF PROFIT

It is now appropriate to discuss the accounting methods of determining profit and to show how these methods cannot be satisfactory as they relate either to the different theories of profit or to the definition which would suit the enumerated multiple objects.

The use of such phrases as accounting profit, fiscal profit or legal profit, brings much confusion in the minds of those not familiar with accounting techniques. Why not simply state that there is but one profit which is the measure of the economic progress of the firm and the basis for business decisions? This statement may appear gratuitous when it is known that present accounting methods owe their existence in large degree to the legal requirements imposed upon business by taxation, price control, struggle against trusts and combines, control of public utilities, etc.

It is scarcely admissible for the tax computation to be based on a result that bears but little resemblance to the real profit. It would be much more logical for government to base this computation on the economic profit and to set tax rates accordingly. For, if accounting methods distort the economic data of business enterprise, the standard of fiscal measurement is thus also distorted. This section will demonstrate

that in a period in which there are important price variations, either rising or declining, the accounting methods do not permit an adequate knowledge of business profit.

POSTULATES OF ACCOUNTING FOR PROFIT

The accounting of profit is based on hypotheses and postulates which, whilst acceptable and accepted because useful, are not demonstrable truths. Indeed, the accounting determination of profit is based on three postulates which may be expressed as follows:

- 1) The variations of the monetary unit, which is the accounting symbol, can be ignored;
- 2) In the absence of evidence to the contrary, business firms are supposed to last indefinitely;
- 3) The profit should be recognized and registered only at the time when it is supposed to be realized. This realization can be actualized by a receivable, a receipt or by any other new asset.

These three postulates are commonly called by accountants: the monetary postulate, the postulate of continuity or performance, and the postulate of realization.

VALIDITY OF ACCOUNTING POSTULATES

Not one of these postulates has been readily accepted by economists. They have particularly refused to adhere to the postulate of realization and to the monetary postulate. For them, the simple fact of production, the transformation of raw materials into a consumable product, constitutes an increase in the national wealth, thus in income. Therefore, as regards the nation, there can be no question of considering as a profit the difference between the selling price and the production cost of goods. However, when it was a matter of determining the payment to the various factors of production in the computation of the national income, statisticians included therein profit as the remuneration of the function of enterprise. From this standpoint, it can be said that the economists have drawn appreciably closer to the view of businessmen, who consider profit as the payment received for the exercise of a function essential to economic life, the function of enterprise.

As regards the monetary postulate, they have rightly denied it any measurement value whatsoever, in view of the successive waves of inflation which national economies have undergone during recent years. However, the accountants, supported by legislation, have not thought fit to change their methods so as to take their objections into account.

The concept of continuity is of primary importance in appraising the value of a business. The life of the firm results in a continuous current of activities, those of the moment being conditioned by those of the past and in turn conditioning those of the future. The act of slicing this life into arbitrary segments to compute the results thereof, separates elements which in reality are not separable and tends to give an appearance of exactitude to data which depend more often than not on future events. It must, therefore, be admitted that financial reports, even when prepared under the most favorable circumstances, have a provisional character and the businessman must be ready to change his decisions according to these reports when events show a reality different from that predicted.

THE MONETARY CONCEPT OF PROFIT

Accountants have a monetary concept of profit. They consider, first, that the profit must be available and that no account should be taken of the fluctuations of the monetary unit in computing the profit. This position is acceptable when the value of the monetary unit varies but little or when these variations are very slight. However, the inflation of recent years has demonstrated that this postulate no longer has anything in common with reality. They deem that the determination of profit is already too dependent on subjective elements and, therefore, that it should be allowed to retain this last phase of objectiveness which is the historical cost.

Indeed, the accountant who computes business profit must already use his judgment in evaluating certain expenditures, such as depreciation, stock inventories, reserves for doubtful accounts, etc. For him, therefore, it is essential that this valuation at least be based on the historical cost registered at the time of the transaction. Otherwise, if it is a cost which has been adjusted to account for the variation in the monetary unit's purchasing power or in the replacement cost, another element of subjectivity is added to those already existing.

Keynes has very well stated: "A man does not hold money for its own sake, but for its purchasing power—that is to say, for what it will buy. Therefore his demand is not for units of money as such, but for units of purchasing power. Since, however, there is no means of holding general purchasing power except in the form of money, his demand for purchasing power translates itself into a demand for an equivalent quantity of money."³

What has been written about the individual is equally true of the business firm. The latter is interested in its profit as a source of purchasing power supposedly equal to the amount which expresses it. Statistics, and events in daily life perhaps even more so, prove that the purchasing power of the monetary unit has dropped considerably, and that a greater number of the same units is required today, than was necessary 25, or even ten years ago, to acquire an identical asset. Professor Graham has advanced the hypothesis that accountants were partly responsible for the instability of prices and for the extent of cyclical fluctuations. By their methods, accountants have indicated implicitly that they considered the value of the monetary unit to be stable, whereas experience has demonstrated the contrary. In charging historical costs against current income, they have constantly shown too high profits in inflationary periods.

In so doing, they have contributed to an artificial stimulation of expansion in the economy and, by creating a fictitious economic prosperity, are thus responsible for the rapid price rise, which favors exaggerated demands for higher salaries, and an increase in consumption and credit.

In periods of recession, the same methods give an opposite result. Profits are understated, thus giving the impression that the decline is more marked than it is in reality. This results from the fact that current income is charged with high cost, especially in the case of capital assets, which were incurred during prior periods. If, in a period of deflation, a firm is able to earn a profit based on current costs, it is evidently capable of replacing its consumed asset and of making a real profit. If accountants report facts other than these, they contribute to the useless prolongation of the depression.

³Keynes, J. M., *Treatise on Money*, New York. p. 53.

FALLACIES OF THE MONETARY CONCEPT

The accounting determination of profit, according to conventional methods, is falsified in three ways: In the first place, as the income is automatically reported in monetary units of the current period, it would be logical to report the expenses which match with the revenues also in the monetary units of the same value. Now, according to the monetary postulate which requires the original cost to be charged to a period, certain expenses are in the monetary unit of the current period while others, such as depreciation and to a certain extent the cost of goods sold, are expressed in the operating account in monetary units which do not have the same purchasing power. It is just as inconceivable to add monetary units of different value as it is to add oranges and wood pulp.

The monetary unit is a convenient way of adding goods which are altogether different. However, to represent the value of these goods, it must have the same purchasing power. Consequently, a mixture of historical costs and present costs can neither serve to determine the earning power of the firm nor to indicate the results obtained by management. In the second place, the profits and assets which appear in the reports of a given period are not comparable to those of another year if the price levels are different. Finally, since the prices of certain products rise or fall more than certain other prices, there are resulting gains or losses in certain assets, which gains or losses are not reflected in the accounts.

The influence of inflation may be greater in certain industries and less in others, depending on the accounting methods used. This influence depends on certain factors, such as the differences in the importance of the fixed prices, the year that these assets were acquired, the price fluctuations in the capital assets and the differences in the methods of computing the depreciation. Indeed, depreciation often is the largest expense which is not expressed in monetary values corresponding to those which represent the income. Consequently, a firm which acquired capital assets before the war for example, charges to the income of a given fiscal period, a smaller sum than that which would have acquired these assets in 1954. This difference is due not only to the greater productivity of the most recent capital assets, but also and perhaps particularly because the monetary unit has an altogether different value. If it is admitted that profit is what may be spent without destroying the capital, either by distributing it amongst the proprietors or by investing it in the firm for the purpose of expansion, the depreciation charge must be equivalent to the capital assets effectively destroyed during the period. What occurs with present accounting methods is that the profit figure includes sums which the firm needs merely to maintain its capital intact.

Insofar as the accounting profit of a firm influences investments in this firm or the acquisition of its shares, the monetary postulate is liable to cause the available capital to be badly distributed amongst the firms seeking additional funds.

Two other consequences may result from the use of the monetary postulate in periods of inflation. Firstly, the profits being higher than usual, the workers inevitably demand higher salaries. This additional cost imposed on business firms is finally reflected in consumer prices. Another consequence which may be extremely important to certain firms or industries is the possibility of income taxes being too high, thus discouraging expansion in firms which, otherwise, would be profitable and very productive for the economy.

PART III

REAL PROFIT AND ECONOMIC DECISIONS

The principal aims pursued in the determination of profit have been indicated and a definition of profit in keeping with these aims has been adopted. It has been seen that only the profit expressed in real terms can be useful in economic analysis. The measurement of profit should be based on methods in keeping with reality, but before discussing these methods, it is first necessary to clarify the meaning of this expression.

Now profit is an increase in capital, a certain number of assets which have been added to the existing stock during a given period. In speaking of real profit, it is thus a physical quantity which is being measured. It isn't some number of monetary units. Unfortunately, in view of the impossibility of adding quantities of different assets, it is necessary to use a symbol which is the monetary unit.

This symbol will never be able to differentiate between the assets which make up the investment of a firm; it can only give the total result. It must be admitted that accounting, economic or statistical results are only approximations. In short, an attempt is made to determine the quantities, but quantities which are expressed by a symbol and which themselves end up by having a symbolic value. The analysis of accounting methods has shown that it isn't the concepts of profit, income or cost which are false, but rather the means used in actualizing them. Indeed, the establishing of value in a firm is extremely difficult, but the problem becomes even more complicated when the symbol expressing this value varies constantly either up or down. When accounting methods refuse to recognize this fluctuation, it is impossible to effect any profit measurement in real terms. In periods of monetary stabilities, these methods may furnish sufficient approximations but, in inflationary times, the situation is quite different. It happens that accountants report profits even when the firm's position is worse in fact than it was at the beginning of the period and dividends are distributed from what is believed the profit whereas, in reality, this distribution decreases the capital.

A firm has made no economic progress unless it has recuperated the replacement cost of the assets it uses, because at that moment only has it maintained its capital intact. Figures which have been adjusted by means of a general price level index might in some instances be closer to the truth than those which have not been adjusted. However, it must be admitted that in order to reflect the replacement cost, it is necessary to use indices which have been especially prepared for each category of assets utilized or owned by the firm. This method of adjustment is certainly much more useful because the former merely determines whether the purchasing power of the total capital has been maintained rather than reveals whether the replacement cost of the various assets has been recuperated.

The point seems clear that these accounting methods, based on the monetary postulate, do not satisfy the needs of those who have to judge the value of a firm or decide its future. It is accordingly necessary to adjust financial reports which do not take into account the variations of price levels. Which indices should be used? It should be observed that it is the results of business that must be measured and not the results obtained by the investors due to business operations. The accounting of business is not the accounting of the shareholders or of the bondholders. To keep the previous idea of determining a real profit, it seems clear that only specific indices can give positive results.

Some authors are of the opinion that in order to show the effects of price level variations, it is only a matter of indicating that all the expenses deducted from the revenues are expressed in monetary units of the same value.

According to this opinion, one must utilize an index that is as general as possible, and this index is the consumer price index. It is also said that depreciation has nothing to do with the replacement of assets and that financial statement adjustments must only show that the purchasing power of initial capital has been maintained.

This is tantamount to asking: Has the shareholder investment lost its initial earning power? In fact, the problem as stated is misplaced. Shareholders cannot be identified with a firm. Moreover, it is not essential that the short-term interest of the firm be compatible with those of the investors.

Suppose for example, that a firm had acquired an asset in 1940 for the amount of one hundred thousand dollars. To maintain its initial capital intact, the enterprise must be able to recover through its revenues sufficient amounts to replace this asset. Prices do not all vary at the same time and in the same way. If the consumer price index in 1960 were 124 and the replacement cost index of the asset were 140, the adjustment by the consumer price index would not allow the determination of correct profit since it could not recover the necessary amounts to maintain its capital. However, if the replacement cost index is 110 and adjustments are made with the consumer price index, results are again falsified. Moreover, it is possible that this time a prejudice could be created against the consumers, since management would be tempted to increase its prices if possible to take into account the results of adjustments. It seems logical then to conclude that only specific indices would give adequate results.

It should not be assumed that accounting reports contain all the information necessary for decisions. Accounting merely registers what is past, whereas estimates are much more useful for the making of decisions. The determination of the "ex ante" profit, even if it is effected with the techniques of accounting, cannot be likened to it. Accounting registers facts alone, and not what is projected. Most data useful for decisions, though computed in accordance with accounting techniques, are in fact statistical data, which cannot be found in the books of a firm. Only the data concerning the "ex post" results can be found confirmed therein, and even then it is still necessary to make important adjustments to the resulting reports in order to take price variations into account.

Thus, "ex ante" reports are statistical reports based on estimates, anticipated results which are not included in the books of account. When accounting is called a powerful tool for economic analysis, accounting techniques are meant rather than the facts really registered, although these latter are essential for measuring economic progress and determining the trends which permit the forecasting of the future.

It should also be recognized that the behaviour of individuals or groups cannot be totally described or explained by means of accounting. It is quite clear that behaviour can never be reduced to a debit or a credit. Nevertheless, accounting provides a knowledge of the measurable economic phenomena, thus giving the economist an opportunity to exercise his judgment, supported by the direct observation of economic reality. It is to the advantage of both accountant and economist to understand the interdependence of their respective problems and to keep each other mutually informed of their research.

S.I.C.A. News



NATIONAL OFFICE INTEGRATES

A new system of further integrating course registrations and membership records has speeded up operations at the national headquarters of the Society this fall. At the same time, the system provides vital statistical information that otherwise would be difficult to obtain.

The addition of an addressing machine and typewriter key punch has made it possible to process registrations, membership and accounting records, and mailing lists simultaneously, eliminating the three separate typing operations that formerly took place. With the typewriter key punch, membership and accounting data are punched at the same time as the master cards are being typed. Mailing is done directly from the master cards with the addressing machine.

The new equipment makes it possible to process about 150 registrations per day. By eliminating the backlog that accumulated in other years, it also speeds up shipping, permitting us to forward all course materials to a student the day after his registration is received. During September, 30 per cent more applications were processed than during the same period of the previous year. This percentage assumes greater significance when it is considered that all relevant accounting and membership records have been prepared at the same time.

To put this system into effect, it was necessary to standardize all registration forms and the provincial Societies have cooperated fully in this. The standard registration form adopted provides personal as well as membership data and will be the basis for preparing a statistical profile of our student membership.

With this information, the Society will be able to classify membership by type of industry, size of industry, age, marital status, and period and level of business experience. This statistical summary will have many valuable applications, especially as it relates to performance in the courses and examinations.

In addition to the obvious advantages of the system in processing student registrations, it will provide many other benefits. Examination results will be speeded up with less possibility of error. General mailings, including **Cost and Management**, conference literature, etc., will be handled in a fraction of the time it formerly took.

As with all new systems, extensive reorganization of work was necessary before the installation could be made and the changeover itself required extra staff time and effort. Your forbearance and cooperation during the period of installation has been very much appreciated and has made possible a smooth transition to a system that promises to serve you better than ever.



CHAPTERS AND MEMBERSHIP

This season, several chapters are planning to present special discussion programs for the purpose of studying selected subjects in depth.

In the case of the Montreal Chapter, this will be a supplement to the regular program of chapter meetings. Discussion groups will be formed to study "Direct Costing." Initially, these groups will be comprised of members with direct costing experience and their discussions will cover common problem areas and current practices. Later, similar groups will be formed of members without actual experience who are interested in increasing their knowledge of the subject.

The London Chapter plans to incorporate their special study of direct costs into the regular chapter program. On February 2, 1962, they will hold a workshop session on "Direct Costs at the Shirtsleeve Level." Rather than being a general resumé of the subject, this session will be aimed at grappling with the fine points and specific problems of direct costing.

These special discussion studies in depth, presented either as regular chapter fare or as additional attractions, follow a trend introduced last year by the Niagara and Quebec Chapters. Niagara Chapter held two such groups last year—"Return on Investment" and "Business Decision Games"—as part of the regular program. Quebec Chapter's contribution was a special discussion group on "Basic Policies and Techniques Used in the Preparation of a Company Budget" held last March.

PERSONALS

James Glenn, R.I.A., has been appointed Secretary-Treasurer of his Company, Line & Cable Accessories Limited, Newmarket, Ontario. Mr. Glenn is a member of the Toronto Chapter of the Society.

Professor W. J. McDougall, B.A., F.C.A., formerly of Carleton University in Ottawa, has been appointed to the Faculty of the School of Business Administration, University of Western Ontario, London. Prof. McDougall is a General member of the Society.



PUBLICATIONS AND TECHNICAL SERVICES

Listed below are new books that have been added to the Library since the latest Topical Index was published in 1960. Members are invited to borrow them for a period of 30 days or, if they wish to purchase copies, the Society will be pleased to order them from the publishers:

Accounting and Business Decisions—Theory, Method and Use
Black and Champion—Prentice-Hall, Inc., 1961.

Accounting Principles and Control
Vance-Holt, Rinehart & Winston, 1960.

Accounting Systems in Modern Business
Johnson—McGraw-Hill Co., 1959.

Auditing Principles
Jencks—McGraw-Hill Co., 1959.

Bargaining and Group Decision Making—Experiments in Bilateral Monopoly
Siegel and Fouraker—McGraw-Hill Co., 1960.

- Basic Accounting and Cost Accounting**
Grant—McGraw-Hill Co., 1956.
- Budget Control and Cost Behavior**
Stedry—Ford Foundation Doctoral Dissertation Series, 1959 Award Winner, Prentice-Hall, 1960.
- Computer Models of the Shoe, Leather, Hide Sequence**
Cohen—Ford Foundation Doctoral Dissertation Series, 1959 Award Winner, Prentice-Hall, 1960.
- Credit and Collection Principles and Practice, 7th Edition**
Chapin and Hassett, Jr.—McGraw-Hill Co., 1960.
- Financial and Administrative Accounting, 2nd Edition**
Smith and Ashburne—McGraw-Hill Co., 1960.
- Human Relations in Management**
Heckmann and Huneryager—W. J. Gage, Ltd., 1960.
- Industrial Relations in Canada**
Jamieson—Cornell University Press, 1957.
- Management—Analysis, Concepts and Cases**
Haynes and Massie—Prentice-Hall, Inc., 1961.
- Management for the Smaller Company**
Marting—American Management Association, 1959.
- Measure of Management, The**
Chapple and Sayles—Macmillan, 1961.
- Petroleum—Prehistoric to Petrochemicals**
Purdy—Copp Clark Publishing Co., 1957.
- Physical Distribution Management**
Smykay, Bowersox and Mossman—Macmillan, 1961.
- Planning Theory**
Henning and LeBreton—Prentice-Hall, Inc., 1961.
- Poly Type Distributions in Renewal Theory with an Application to an Inventory Problem**
Proschan—Ford Foundation Doctoral Dissertation Series, 1959 Award Winner, Prentice-Hall, Inc., 1960.
- Prediction and Optimal Decisions**
Churchman—Prentice-Hall, Inc., 1961.
- Principles of Economics and the Canadian Economy**
Bellan—McGraw-Hill Company of Canada Limited, 1960.
- Principles of Financial Analysis**
Wessel—Macmillan, 1961.
- Principles of Industrial Management Case Book**
Ziegler—Macmillan, 1961.
- Readings in Auditing**
Johnson and Brasseaux—W. J. Gage, Ltd., 1960.
- Right Approach for Job Searchers, The**
Butler—Business Consultants Publishing Company, 1960.
- Some Personality Determinants of the Effects of Participation**
Vroom—Ford Foundation Doctoral Dissertation Series, 1959 Award Winner, Prentice-Hall, Inc., 1960.
- Stages of Economic Growth, The**
Rostow—Cambridge University Press, 1960.
- Systems Analysis for Business Management**
Optner—Prentice-Hall, Inc., 1960.
- Theory and Practice of Canadian Accounting**
Leonard, Beard and Lund—McGraw-Hill Company of Canada Ltd., 1960.
- Wage and Salary Administration**
Langsner and Zollitch—W. J. Gage, Ltd., 1961.



STUDENTS AND COURSES

1961 MEDAL WINNERS



R. B. Wilson, C.A.



G. H. Falkenham

The Society of Industrial and Cost Accountants is pleased to announce the winners of the awards for high achievement on the 1961 examinations.

The winner of the national Society's Gold Medal for the highest mark in Canada in Fundamentals of Cost Accounting was Ronald B. Wilson of Hamilton, who also won the Ontario Society's Gold Medal for this subject. The national Society's Gold Medal for the highest mark in Canada in Advanced Cost Accounting was won by Gerald H. Falkenham of Armdale, N.S., who also won the Nova Scotia Society's Gold Medal for this subject.

A native of Toronto, Mr. Wilson came to Hamilton last May when he was appointed General Accountant with N. Slater Company Limited. He attended Humberside Collegiate in Toronto, later articling with Clarkson, Gordon and Co. and Gunn, Roberts and Co. He received his C.A. in 1958.

Born in Lunenburg, N.S., Mr. Falkenham graduated from Lunenburg County Academy in 1944. After taking a course in Advanced Accounting at Maritime Business College, he joined Swift Canadian Co. Ltd., Halifax, as an accounting clerk. During the next nine years, he served successively as Office Manager of the Saint John, N.B. branch, and in Departmental Accounting and Internal Auditing with the Moncton branch. In 1954, he was appointed to his present position of Office Manager of the Halifax branch. A Captain and Paymaster in the Halifax Rifles RCAC(M), he is also Treasurer of the RCAPC Association, Halifax.

The other Ontario award winners for the highest marks in the Province were E. W. Chambers, Silver Medallist in Industrial Legislation and J. Gordon Dagg, Gold Medallist in Advanced Cost Accounting.



E. W. Chambers



J. G. Dagg, B.Com., C.A.

Mr. Chambers has been with the Accounting Department of United Steel Corporation Ltd., Toronto, since 1948. Previously, he was employed by the Royal Bank of Canada which he joined in 1938 after graduating from North Toronto Collegiate. This period of employment was interrupted for four years during which he served in the R.C.N.V.R.

Mr. Dagg, formerly of Toronto, was appointed Comptroller of Brinton-Peterboro Carpet Co., Limited, Peterborough, last August. After graduating (B.Com.) from the University of Toronto in 1953, he joined McDonald Currie & Co., with whom he qualified as a Chartered Accountant in 1956. He later joined the Industrial Development Bank where he served as financial analyst and credit officer until accepting his present position.

This year's winners of the prizes presented annually by the Quebec Society for high marks in the Province have recently been announced by the Society. They are: Paul Talbot, Wallace Silversmiths, Cookshire, for Accounting II; John R. MacDonald, B.Com., Canadian Liquid Air Company Limited, Montreal, for Industrial Organization and Management; Leslie Gabor, Pedulla & Agostino Ltd., Montreal, for Fundamentals of Cost Accounting; and Gilles R. Lamothe, Canadian Army, Quebec City, for Advanced Cost Accounting.

EXAMINATIONS 1960

ACCOUNTING I

QUESTION 3 (5 marks)

The operating results of a particular department in your company have shown consistent losses after the department has been charged with reasonable amounts of selling and general expenses.

The president of the company has asked you, as accountant, if there are reasons why the departmental operations should be continued.

REQUIRED:

List your reasons.

SOLUTION 3

The main point to be made was:

If the department contributes to overhead absorption it should not be discontinued.

When such a department is discontinued the other departments will have to bear a greater amount of fixed expenses and overall profit will be reduced.
Other points are:

The allocation of appointed expenses, such as rent, advertising, etc., may not be accurate.

The department may draw customers to other departments that are profitable.

INDUSTRIAL ORGANIZATION AND MANAGEMENT

QUESTION 1 (20 marks)

The quotations of this question reflect the basic precepts of management policy for a large Canadian manufacturing company, as written by its Chairman of the Board:
(a) "The successful operation of any Industrial Enterprise depends primarily upon the quality of the men who constitute the company. It is clearly not possible to operate this company as a Monarchy, subject to the executive decisions of any one individual at Head Office. It is intended that the Company shall be decentralized to the extent that it may be practical.

"The rules of the game within this TEAM will operate are, in effect, laid down by the MANAGEMENT ORGANIZATION PLAN. The satisfactory operation of the MANAGEMENT ORGANIZATION PLAN depends entirely upon the successful delegation of RESPONSIBILITY and proper delineation of LINE AND STAFF AUTHORITY, and above all continuous SUPERVISION AND CONTROL. The delegation of responsibility with the MANAGEMENT ORGANIZATION PLAN must follow simple but fundamental principles."

REQUIRED:

Discuss the fundamental principles to be followed in implementing the Organization plan. (12 marks)

(b) An administrative committee, presided over by the President, meets about 25 times a year. It is composed of the 10 heads of the staff and line operations who report directly to the President. As its name suggests, the function of the committee is to co-ordinate the activities of the organization.

Committee decisions are not by majority vote in that any particular programme or decision, be it marketing, engineering, manufacturing, etc., is decided by the President, providing it is within the policy as set up by the Board of Directors. The Chairman of the Board does not ordinarily attend.

REQUIRED:

Discuss the advantages and possible weaknesses of this committee organization. (8 marks)

SOLUTION I

(a) The candidate was required to discuss the principles to be followed in implementing the management organization plan. A solution containing any five of the following points, accompanied by a brief description of each earned full marks provided that the overall presentation was satisfactory.

1. Responsibility must be consistent with authority.
2. The principle of management by exception.
3. Provision for the use of pooled judgment and committees.
4. The establishment of clear lines of communication, both up and down the organizational ladder.
5. The proper organization of the various functions.
6. A discussion of the Line and Staff concept.
7. The need for competent key personnel.

8. The need to provide for cooperation and coordination.
9. Provision for training of personnel.
10. The establishment and use of sound management policies, and the need to keep all personnel fully informed of these policies.
11. The presentation of an organization chart illustrating the principles referred to.

(b) Candidates were required to discuss the advantages and possible weaknesses of committee organization. A correct solution should list and describe briefly at least five of the following advantages, and three of the following weaknesses, or vice versa:

Advantages:

1. Many points of view (pooled judgment).
2. The ability to delegate problems to appropriate specialists.
3. A means of communication.
4. May permit fast, well-considered decisions.
5. A tactful method of coordination.
6. A means of resolving personnel problems at an early stage.

Disadvantages:

1. Can be autocratic if a strong leader does not permit the committee to function.
2. May create "yes-men".
3. May dampen enthusiasm if ideas forced.
4. This committee may be too large and unwieldy.
5. The time required for meetings may be more effectively utilized by the attending executives in performing their regular duties.
6. The committee may allow division of responsibility.

MANAGERIAL STATISTICS

QUESTION 1 (7 marks)

Suppose the probability of a married man dying within one year is 0.20 and the probability of his wife dying in the same period is 0.10. (Assume the probability of death of one is independent of the probability of the death of the other.) What is the probability that

- (a) Both will be alive at the end of the year? (3 marks)
- (b) At least one will be alive at the end of the year? (2 marks)
- (c) At least one will die during the year? (2 marks)

SOLUTION 1

- (a) Probability of man living 1 year $= 1 - .20 = .80$
 Probability of woman living 1 year $= 1 - .10 = .90$
 Probability of both living 1 year $= .8 \times .9 = .72$
- (b) Probability of both dying $= .2 \times .1 = .02$
 Probability of at least one being alive at end of year
 is 1 minus probability of both dying $= 1 - .02 = .98$
 OR
 Probability of at least one living is probability that
 man lives + probability that woman lives and man
 dies $= .80 + (.90 \times .20)$
 $= .80 + .18 = .98$
 OR
 Probability is probability that woman lives + prob-
 ability that woman dies and man lives $= .90 + (.10 \times .80)$
 $= .90 + .08 = .98$
- (c) Probability of at least one dying is 1 - probability
 that both live $= 1 - .72 = .28$ (see (a))
 (This answer can also be obtained by type of variations given for part (b) above.)

The Editor's Choice

A CRITICAL LOOK AT THE MARGINAL GRAPH TECHNIQUE

by J. R. Burchard, N.A.A. Bulletin, May 1961

In this very interesting but brief article, the author compares the marginal graph and the break-even chart as to which is the better method of interpreting the cost-volume relationship. He takes a hypothetical example and demonstrates that in ordinary times marginal costs and marginal revenues do not meet at a point of equality, but are more likely to remain constant. Therefore, there can never be a point of maximum profit represented on the marginal graph. From this analysis, the author concludes that the linear representation of the break-even chart is a better guide to the cost-volume relationship.

A CRITICAL LOOK AT LEASE FINANCING

by D. R. Gant, The Controller, June 1961

The author appraises leasing as a method of financing capital assets. He states that this is a valid means of financing and is neither good nor bad in itself, but its worth can only be measured in any situation by comparing it to other means of financing. Mr. Gant examines some pros and cons of leasing and shows that many of the arguments often advanced are not valid. He also states that present methods of accounting are deficient in disclosing lease implications in financial statements.

THE 500 LARGEST U.S. INDUSTRIALS

Fortune, July 1961

This is a repeat of *Fortune's* annual report on the 500 largest industrial companies in the U.S. The companies are ranked first in order of sales. General Motors is again well ahead with over 12¾ billion; the 500th company has over 72 million in sales revenues. Several other ratings are given such as assets, invested capital, percent profit on sales, etc. This is an interesting score board, and will be followed in the next issue by a similar rating on non-industrial firms.

TOP MANAGEMENT COMMITTEES

by M. R. Lohmann, AMA Research Study 48, 1961.

Much has been said and written with heat concerning the value of the committee process in management. This study is a condensation of facts gathered from 93 firms that have 319 committees of all types. The aim of the study is "to set forth the conditions in which committees operate effectively and name the fields in which they can be successful . . . The less effective areas of committee operations are also accurately defined."

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